

Preliminary experiments are first described bearing chiefly upon the first-named source of error.

Liebig's process for extracting kreatine from the juice of flesh was modified by omitting the use of baryta-water, with the result that abundance of kreatine was obtained, mixed with acid potassium phosphate (KH_2PO_4). In Liebig's process potassium chloride is obtained after the kreatine has been separated.

A preliminary experiment is then described in which the author precipitated the albuminoid matters from the watery extract of fresh butcher's beef by means of solution of mercuric chloride, the filtrate depositing on standing a spherical precipitate, consisting of the mercury salt of the sarcous kreatinin, from which a tabular kreatinin was obtained isomorphous with the tabular kreatinin obtained by the author from human urine in 1887.

The special advantages of the method adopted by the author in isolating the kreatinin of urine are next detailed, after which a series of experiments are described in which muscle substance in different stages of freshness was extracted with water, the extracts treated by the mercuric chloride method, and the products compared.

Among these products is sarcous kreatinin, whose properties are fully described and carefully compared with those of urinary kreatinins previously investigated (*vide* 'Roy. Soc. Proc.,' vol. 43, pp. 493-534).

The final conclusion drawn is that sarcous kreatine is not present in fresh muscle, but results from bacterial action, whereas sarcous kreatinin is probably a true "educt."

II. "Note on Dr. Fenton Evans' Paper on the Pathogenic Fungus of Malaria." By W. T. THISELTON DYER, M.A., C.M.G., F.R.S. Received May 12, 1891.

The abstract of this paper published in this volume of the 'Proceedings' contains (p. 200) the following statement: "Alteration in the chemical composition of the nutrient medium . . . elicited the interesting fact that, under these circumstances, the organism can pass to a more highly developed state, displaying the structure and fructification of a highly organised fungus, but differing in certain important features from any fungus hitherto described."

This statement will remain on record, and can hardly fail to cause some perplexity to future students of the ætiology of malaria. I was present at the reading of the paper. The fungus exhibited was undoubtedly "highly organised." It was in point of fact a typical *Mucor*, and my friend Professor Marshall Ward, who was also present, was disposed to regard it as identical with the form known

as *Mucor racemosus*. The identification was so unmistakable that I utterly fail to understand in what "important features" the fungus differed "from any fungus hitherto described."

In the face of the undoubted fact that the fungus was a characteristic *Mucor*, it seems to me very improbable that it has a genetic relationship with any of the organisms found in the blood, and much more likely that its appearance in the nutrient medium was due to some experimental error.

III. "Method of indexing Finger-Marks." By FRANCIS GALTON, F.R.S. Received April 30, 1891.

Sufficient proof was adduced by me in a memoir read November 27, 1890, before the Royal Society ('Phil. Trans.,' B, 1891), of the extraordinary persistence of the papillary ridges on the inner surface of the hands throughout life. It was shown that the impression in ink upon paper of each finger tip, contained on the average from twenty-five to thirty distinct points of reference, every one of which, with the rarest exception, appeared to be absolutely persistent. Consequently that it was possible to affirm with practical certainty whether or no any two submitted impressions were made by the fingers of the same person.

In the present memoir I shall explain the way in which finger prints may be indexed and referred to after the fashion of a dictionary, and on the same general principle as that devised by A. Bertillon with respect to anthropometric measures, whose ingenious method is now in regular use on a very large scale in the criminal administration of France and elsewhere. I desire to show how vastly the practical efficiency of any such method as that of A. Bertillon admits of being increased by taking finger prints into account in the way about to be described.

It must not, however, be supposed that the use of indexing finger marks is limited to the above purpose, the power of doing so being equally needed for racial and hereditary inquiries. I do not dwell upon these applications now, simply because I am engaged in making them, and the results are not yet ready to be published. I ought, however, to mention that a great increase of experience has fully confirmed my earlier views, that finger marks are singularly appropriate subjects of anthropometric study owing to many distinct reasons. The impressions are easily to be made by anyone who has the proper appliances at hand. They are as durable as any other printed matter, and they occupy very little space. The patterns are usually sharp and clear, and their *minutiae* are independent of age and growth. They are necessarily trustworthy, and no reluctance is shown in per-